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ABSTRACT

The activities and services delivered under the School-to-Work Opportunities Act of 1994 by the Capital Area Education and Careers Partnership in Austin, Texas, during 1998 and 1999 were evaluated by an independent evaluator, using interviews with 24 persons involved in the project, site visits, and document analysis. The evaluation found that during its first 2 years of operation, the Partnership: (1) consistently progressed toward the attainment of annual objectives in each of its four major program areas (Career Awareness, School-Based Activities, Work-Based Activities, and Connecting Activities); (2) delivered goods and services directly to schools, expanding their interest in School-to-Career (STC); and (3) directly accomplished or contributed to the advancement of School-to-Career objectives in Travis County (Texas) by promoting regional, systemic, collaborative, and continuous improvement approaches throughout the STC initiative. The evaluation also reported the Partnership continues to face constraints beyond its control in implementing its STC initiative. It was recommended that in the third program year, the Partnership should: develop strategic approaches for building and maintaining the commitment of collaborators; broaden the concept of STC and advance systemic practices throughout the regional project; advance the sustainability of STC activities by developing new

sources of funds; examine methods for engaging and retaining students and teachers in high tech career concentrations; and develop accountability. (Interview guide is included). (KC)

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We owe an enormous intellectual debt to our colleague Bob Glover who has contributed materially to the development of school-to-work initiatives in the Austin area for many years. Diane Tucker, Karen Franke, and Richard Havens of the Ray Marshall Center provided the necessary technical support for the project.

I. Overview

This report presents results of an evaluation of activities and services delivered under the School-to-Work Opportunities Act of 1994 (PL 103-239) by the Capital Area Education and Careers Partnership (the Partnership). The Partnership contracted with the Ray Marshall Center for the Study of Human Resources (RMC), a research unit of the Lyndon B. Johnson School of Public Affairs at The University of Texas-Austin, to conduct the evaluation.

School-to-Work activities (known as "School-to-Career" in Texas) are provided largely through 26 regional School-to-Career (STC) Partnerships with funds provided by a five-year federal grant administered by the Texas Workforce Commission (TWC). The Partnership has received three successive one-year grants from TWC to implement School-to-Career activities in Travis County. TWC required an independent evaluation of Year One (SFY 1998) and Year Two (SFY 1999) activities that included recommendations for program improvements for its Year Three (SFY 2000) grant.¹ This report is in response to that requirement.

During its first two years of operation, we found that the Partnership:

- Consistently progressed towards the attainment of annual objectives in each of its four major program areas: Career Awareness, School-based Activities, Work-based Activities and Connecting Activities. For example, the *quality* of student internships increased alongside the *quantity* of slots available. Also, Partnership support for "Industry Liaisons" has helped to strengthen *employer engagement* within the Industry Sector Steering Committee (ISSC) structure.
- Delivered goods and services directly to schools that further engaged their interest in STC. The Partnership provided assessment and testing software, supported Career Fairs, assisted curriculum development, and provided brochures and other marketing materials to schools and school districts.
- Directly accomplished or contributed to the advancement of School-to-Career objectives in Travis County by promoting regional, systemic, collaborative and continuous improvement approaches throughout the STC initiative.
- Continues to face constraints beyond its control in implementing its STC initiative. These include the voluntary nature of participation for educators, employers and students; the persistence of the academic/vocational track mentality at the secondary level; and the paucity of secondary students in the Austin area who are adequately prepared for and/or interested in High Tech careers.

¹ Year One funds did not become available for expenditure on program activities until February 1998. According to planning documents, the total Year One budget was \$381,831; the Year Two budget was \$440,000.

The Partnership may find this a propitious time for considering options to redirect part of its energies and resources over the remaining annual grant cycles toward several important tasks. We recommend that the Partnership revisit strategic approaches, enhance systemic practices, improve performance management, increase the transparency of STC among educators and employers, and advance the sustainability of STC activities by forging new funding linkages, among other recommendations. The Partnership has developed a foundation upon which collaborative leadership and support from employers, educators, government and communities can be focused toward institutionalizing STC practices and policies in their operational regimes. Although relatively simple to articulate, these remain immense challenges.

Approach. In consultation with Partnership staff, we conducted a process evaluation built upon interviews and document analysis.² The broad charge of the evaluation was to assess the accomplishments, constraints and prospects of Partnership initiatives designed to help youth and young adults advance their educational and workplace achievements in pursuit of satisfying and productive careers.³ We developed an evaluation design that captured implementation experiences for employers, educators and collaborators to date. These experiences provided a basis for assessing Year One and Two efforts, as well as a basis for recommending STC improvements.

Interviews. Between February 14, 2000 and March 17, 2000, we conducted informal, but structured interviews/conversations (in-person and telephone) with twenty-four individuals positioned at multiple points in the regional STC configuration. Interviewees included the Partnership director, the director and employees of the Capital Area Training Foundation (CATF, the principal contractor), school district liaisons, instructors, employers, employment trainers and mentors, as well as individuals with associated organizations (e.g., the Greater Austin Chamber of Commerce).⁴ These interviews were supplemented by site visits and observations of STC-related meetings, including several Industry Sector Steering Committee meetings, a CATF Board meeting, and a school-based Foundation meeting.

Document Analysis. We reviewed annual Partnership planning documents, budgets, contracts, management reports and evaluations, as well as education and training

² As noted later in this report, STC participation and outcomes data are inadequate or lacking altogether. Combined with resource and time constraints of the evaluation, data scarcity precluded conducting an impact analysis or a cost-effectiveness study as part of this evaluation.

³ The assessment is limited to the extent that data are readily available or can be collected within the time constraints of the evaluation. The challenges of evaluating School-to-Career initiatives in general are well recognized; see Robert W. Glover and Christopher T. King, "Net Impact Evaluation of School-to-Work: Desirable but Feasible?" in USDOL, *Evaluating the Net Impact of School-to-Work: Proceedings of Roundtable* (Washington, D.C.: U.S. Government Printing Office, 1997).

⁴ It was not considered an efficient use of limited evaluation resources to interview students since they are already the target of a comprehensive, longitudinal survey by the Texas State Occupational Information Coordinating Committee. See footnote 5 below.

materials, brochures and marketing materials, as available.⁵ These documents provided a general understanding of the STC initiative and its outcomes in the Austin region over the first two years. Most importantly, they provided a basis for developing an interview protocol to examine the relationship between the design and implementation phases of the regional STC effort.

Interview Guide. We developed an interview guide that featured an ambitious array of topical questions on STC experiences from multiple perspectives.⁶ The guide allowed informants to share their experiences regarding the achievements, constraints, prospects and recommendations in the four key program areas in Years One and Two: Career Awareness, School-based Activities, Work-based Activities and Connecting Activities. Topics targeted for general discussion included:

- Systemic Features of the Partnership
- Goals and Objectives
- Activities and Services
- Collaborative Configurations
- Student Participation
- Resources
- Outcomes

Additionally, we also engaged educators and employers in discussing a number of specific subtopics, including:

- Outreach/Marketing
- Enrollment/Recruitment
- Service Planning/Services Provided

⁵ Three statewide reports of School-to-Careers in Texas have recently been released: *School-to-Careers Activities in Texas: A Status Report* (Austin, TX: Texas Workforce Commission, January 1999); Elizabeth Dimmitt, *Texas Career Progressions: Exploring Career Advancement for the 21st Century* (Austin: Texas State Occupational Information Coordinating Committee, n.d. [1999]); and ImpactDataSource and the Technology and Economic Development Division at Texas A&M University, "Linking School-to-Careers with Economic Development: A Report on the Economic Impact of School-to-Careers in Texas," (Austin, TX: Texas Workforce Commission, November 1999). TWC contract monitors also issued a November 1999 draft report regarding the Partnership, "A Review of the Capital Area Education and Careers Partnership" (Austin, TX: TWC).

⁶ Appendix A contains the Interview Guide.

- Monitoring/Management, and
- Follow-up Activities

Organization of the Report. This report presents our evaluation results in the following four sections. The first assesses the effectiveness of the Partnership in attaining its stated annual objectives. The next presents notable accomplishments of the Partnership in Years One and Two. The third section raises some of the fundamental and persistent issues that surfaced during discussions in the field. Though most of the individuals who are actively engaged in Austin STC efforts are familiar with these issues, restating them is beneficial to understanding the operational context and challenges as the Partnership prepares to continue its efforts in the forthcoming years. The final section recommends specific actions for the Partnership to consider in the last two years of its federal grant.

II. Year-One and Year-Two Objectives

The Partnership established a series of annual objectives in Career Awareness, School-based Activities, Work-based Activities and Connecting Activities, its principal program areas, for the five-year federal grant period. Annual objectives were incrementally adjusted to reflect the actual and anticipated status of the STC project in Travis County. This section presents an assessment of progress, constraints, and prospects in each of these areas for Years One and Two based on interviews and field observations.

Career Awareness

Key Career Awareness objectives included the distribution and use across academic settings of career awareness instruments (e.g. Discover, Explore, Plan); the Individual Academic Career Plans (IACPs); WorkKeys for all graduating high school seniors, and ERISS/WIN in all high schools.

During the first two years, the Partnership has successfully expanded regional recognition of the potential contribution of these career awareness tools. Actual introduction of the tools into the school-based regime has varied.

Career Awareness instruments provided by the Partnership are broadly in use. Educators generally recognize IACPs; common elements of the IACP appear to be used by many secondary schools in the region. WorkKeys was rescheduled as a pilot program in Year 3 followed by broader implementation, as feasible. The ERISS/WIN system has proven inadequate and the Partnership has turned to the Greater Austin Job Network, a multi-function collaboration, to provide those labor market information and matching services previously anticipated from ERISS/WIN.

School-Based Activities

Key School-Based Activity objectives for Year One and Year Two were to identify ways to strengthen existing career concentrations (articulation, accreditation, curriculum development, marketing, etc.); increase the share of high school students in career concentrations; introduce new career concentrations; and build senior student portfolios.

The Partnership has consistently improved and expanded career concentrations at the five ISDs most active in Partnership STC activities. The share of all students participating in career concentrations has reportedly grown steadily as well.⁷ Enrollment in the High Tech sector has not met expectations in the Austin ISD for a combination of reasons, including lack of student interest, lack of adequate student competency in math/science and teacher attrition. The Partnership has not made notable progress regarding the development of student-managed portfolios.

⁷ Precise data are not available.

Work-Based Activities

Key Work-Based Activity objectives for Years One and Two were to measurably increase employer involvement in the ISSCs; increase the number of internships, work-based learning and job shadowing opportunities available to high school and postsecondary students; and increase the number of industry tours available to teachers and counselors.

The number, effectiveness and level of participation in ISSCs have increased notably over the past two years, largely because of Partnership support for CATF Industry Liaisons. In addition, the Partnership Director provides direct support for school-based, systemic relations that in turn enables the Liaisons to intensify their commitment to employer-based and committee-related tasks. Expanding employer participation has facilitated the growth of internships, work-based learning and job shadowing opportunities available to students, as well as the number of industry tours available to teachers and counselors.

Connecting Activities

Key Connecting Activity objectives for Years One and Two were to increase teacher/industry and student/industry mentor partnerships; develop and conduct a "Working to Learn" pilot project; and develop and implement a marketing strategy and measures for increased parent and student awareness of STC benefits. Additional Year Two objectives (not contained in the original five-year plan) were to develop an overall strategy for STC for each industry sector with input from major collaborators (i.e., Chambers of Commerce, Austin Community College, employers and employer associations, ISDs and local government entities) and to assess applicability of the Boston Compact model to expanding number of locally available internships.

The Partnership expanded upon the "Teachers in Industry" model to offer a variety of means to increase and improve teacher/industry mentor partnerships. The Partnership continues to explore effective ways of engaging instructors and counselors to continuously link classroom instruction and workplace applicability, particularly regarding Algebra deficiencies of students, a recognized constraint to career-related placements among many students.

Student/industry mentor partnerships increased and criteria were set to improve the quality of the internships. Internships qualified for course credit, if criteria were met. These included pre-requisite course-work, enrollment in a career concentration, parental approval, a summer learning plan, mentorship and a post-experience evaluation. During the summer of 1999, 52 students qualified for academic credit through this joint initiative of the Partnership, CATF, ACC and Austin ISD. The Partnership provided resources for a Coordinator/Teacher of Record for these interns and plans to expand the effort in the summer of 2000.

The Partnership had mixed results on their other objectives. Sectoral strategy meetings have enhanced collaborative approaches in STC activities, but the level and intensity of

participation varies across the industry sectors. The Working-to-Learn Pilot was conducted; there were no plans to expand or replicate. Marketing efforts have included the production of and distribution of brochures and videos for presentation at different venues. Measurement of the effectiveness of these outreach initiatives was not undertaken by the Partnership, but several educators and employers expressed their appreciation of the effort, particularly the availability of the brochures. (ISDs sent more than 10,000 brochures to parents. The "It's Your Life" series appears to be well-regarded by educators.) Lastly, it also appears that the Boston Compact to which local STC participants were exposed, may have a continuing influence on the direction of the Travis County effort.

III. Conceptual Advances

During its first two years, the Partnership advanced the School-to-Career initiative in Travis County in several conceptual areas. These areas are closely aligned with the Partnership's mission to "provide students with a foundation of academic/career knowledge and skills" and to forge "active partnerships among education, business,⁸ industry, labor, government and community organizations" to achieve its objectives.⁸ Interviews with individuals close to the STC initiatives revealed several accomplishments associated with conceptual progress due to the efforts of the Partnership.

Regionalism. The Partnership and Capital Area Training Foundation, its principal subcontractor, have helped to develop a regional approach to STC by building bridges between area educators, employers, service providers, local government and communities. Smaller school districts, which previously felt overlooked, have begun to get the attention of employers and STC resources on a more equal footing with AISD. Partnership members also participate in the activities of other regional entities, including the Capital Area Tech Prep Consortium and the Capital Area Workforce Development Board.

Systemic Practices. The Partnership has worked to introduce systemic practices in the Austin regional STC effort. These include efforts to standardize Individual Academic Career Plans to improve portability for students and recognition among educators, skill certification during internships, summer internship evaluations, rotational internships and credit articulation agreements.

Co-location. The co-location of the CAECP, CATF, the Capital Area Tech Prep Consortium, the Capital Area Workforce Development Board and Austin Community College's Workforce Development staff at a single location has helped to coordinate the overlapping and complementary efforts of these service organizations.

Collaboration. The Partnership has involved a broad array of individuals and institutions in the STC initiative that has emerged as a broad-based, public/private initiative. It has done so by its support for an "industry-based focus" and Industry Liaisons who have helped to strengthen employer engagement within the Industry Sector Steering Committee (ISSC) structure. Moreover, the personal efforts of the Partnership's Director and members have engaged the attention of ISD Superintendents, Career and Technology Directors, Employers, Human Resources staff and other individuals well-positioned to contribute to STC.

⁸ Article I of the *Travis County School-To-Work Partnership By-Laws* (August 1997).

IV. Persistent Issues

During the interview and observation processes, several persistent issues confronting the STC Partnership were raised. The extent to which the Partnership can resolve these issues will be an important determinant of the STC's initiative's prospects for success. Three issues are predominant. These include the voluntary nature of participation for educators, employers and students; at the secondary level conflict between college-bound and career-oriented conceptualizations of education; and the paucity of secondary students in the Austin area who are adequately prepared for and/or interested in High Tech careers. Ancillary issues engage the real and perceived distance between the institutional cultures of schools and businesses.

Volunteerism. School-to-Careers in Texas is based very explicitly on voluntary participation. This suggests fluctuating levels of commitment related to perceived costs and benefits over time; all actors make some form of investment for some form of return. Both educators and employers are subject to competing demands for human and capital resource allocations.

The Partnership can continue to enhance voluntary participation by documenting and marketing direct and indirect net effects of school to career on business, schools, individuals and communities.

College and Career Pathway Polarization. The Partnership faces continuing tensions over the goals of education. The degree of tension at the school lies along a continuum with proponents of college enrollment on one end and proponents of traditional vocational education on the other. Although educators engaged in STC activities readily acknowledge benefits for the "middle sixty percent" and generally perceive a complementary relationship between career awareness/career concentrations and college enrollment, they also admit that individuals at various points in the education system continue to distinguish the two as mutually exclusive. This perception is complicated by practical events such as scheduling conflicts between career-oriented, academic and/or extracurricular activities, and the student's desire to take advanced placement classes toward a four-year college degree.

The Partnership can continue to ameliorate these tensions by emphasizing the positive outcomes of STC participation regarding grade improvements, high school completion and college enrollment. STC encourages lifelong learning and provides a skills/knowledge "tool kit" that yields benefits for students regardless of their ultimate path. Technical skill training in career concentrations can broaden earnings potential, particularly for those sixty or seventy percent of all college students who never complete their degree. Moreover, the Partnership may continue to work with schools to broaden the perception of STC and to recognize common functionalities between career-related courses in mathematics and science and other courses such as Principles of Technology and Principles of Electronics. To be successful, STC must extend beyond the current career concentrations approach.

High Tech Pathways. Austin is the envy of the nation regarding the expansion of the High Tech sector. Unfortunately, the local labor force is unable to meet the needs of this expanding sector, and employers are required to import labor, in effect contributing to the local wage gap as area job seekers are bypassed. Ironically, Austin's high schools and community college have insufficient enrollments in career concentrations either to satisfy that demand or to enroll students in available internships. Despite the success of such programs as "Accelerated Careers in Electronics" (ACE) that joins ACC, Del Valley High School, Advanced Micro Devices, and the more successful electronics career concentrations in the surrounding school districts, there is a shortage of Austin ISD students who are pursuing High Tech careers at the secondary level. Several factors contribute to this: weak student skills in algebra, lack of student interest and teacher attrition.

Practitioners provided several suggestions regarding this situation. These included beginning career awareness earlier so students know prerequisites well in advance; completing IACPs by the 8th or 9th grade; and strengthening recruitment and retention of instructors. Suggestions regarding the latter included financial and educational incentives such as paid summer internships that keep instructors abreast of latest technologies (while making their salaries more competitive); recruitment/signing bonuses; merit increases; and extended contract days.

We also noted factors associated with schools that were operating more successful career concentrations. These included dedicated instructors, the support of the school and school district administration, ample funding, strong student recruitment efforts and state-of-art facilities.

Ancillary Issues. At key points of contact in the STC configuration, the institutional cultures of education and business may clash. A fundamental concern is the potential gap between school's mission as a producer of knowledge and skills and business's mission as a producer of economic goods and services. Additionally, these may face difficulty over their respective capacity and time frames for change. Academic processes are modulated by several demands (e.g. TEKS, TAAS and other competing initiatives) and tend to progress deliberatively. Business seeks human resource inputs for the short- to mid-term and perceives itself as being flexible, adaptive and swift to be viable in the current economy. An additional prospective point of contention between these two cultures is their competition for human resources in a tight labor market. Educators are concerned about the flight of public school instructors to private sector employment.

V. Recommendations and Observations

Austin's STC efforts are truly unique in the nation in many important respects, ranging from its industry-led, career concentration approach to its remarkable levels of ongoing support among all of its partners.⁹ There is always room for improvement. The Partnership now has an opportunity to build upon its present foundation for the remaining years of its STC grants. The following recommendations are provided as discussion points for planning and ongoing adjustments to current and planned STC activities by the Partnership.

A few caveats are in order before offering these recommendations and observations. First, these are based upon a very limited process evaluation of the Partnership's STC efforts conducted over a few months. We were able to conduct lengthy interviews with key actors involved in Austin's STC efforts, including program staff, educators, employers, and others. However, our scope of work did not involve a more elaborate analysis of the impacts of STC participation or its benefits and costs. Finally, as with nearly all such examinations being performed in the U.S. today, we have examined STC in the context of a very robust and continuing economic expansion in which employers are more inclined to participate in and support STC and related efforts given their pressing need for workers.

Strategic Approaches

The Partnership should develop strategic approaches for building and maintaining the commitment of principal collaborators. Strategic approaches should be based on current knowledge and recent experiences, reinforce systemic practices and build institutional capacity.

The Partnership has used its resources and activities to orchestrate a configuration of actors, events and processes working to implement STC activities in central Texas. It has done so while operating in a highly transitional and fluid environment, as evidenced by turnover in school board superintendents, variable participation in the industry steering committees, and shifts in the political landscape. The Partnership and the CATF should take time now to refine their strategic approaches in regard to linkages with educators, employers and collaborators. For example, for several years the Partnership has been negotiating school-to-career options in the education community with ISD superintendents, STC liaisons, school counselors, instructors of courses across grade levels, parents and students through a combination of systematic and opportunistic approaches. These individuals come from districts and schools that vary widely in size, commitment and capacity. It is appropriate to assess and build upon knowledge and experiences to date. What works best to keep an array of actors individually and

⁹ For an in-depth explanation of the origins, accomplishments and lessons learned from Austin's STC efforts, see Robert W. Glover, *Engaging Industry in Building School-to-Career Opportunities: Lessons to Date from the Experience in Austin, Texas* (Berkeley, CA: National Center for the Workplace, Working Paper #11, October 1996).

collectively committed to STC initiatives? Does the Partnership's organizational design and capacity facilitate this stewardship? How is the Partnership advancing systemic practices through these linkages?

Similarly, Partnership activists have been dealing with an array of employers across industry sectors: independent proprietors, large corporations and employers associations primarily through the ISSCs. Additionally, Partnership and CATF staff have worked closely with city and county governments, the Community Action Network, the Greater Austin Chamber of Commerce and the Capital Area Workforce development Board, as well as the Rural Capital Area Workforce Development Board and STC Partnership. As the Partnership looks toward the future its should assess its experiences with each of these sets of relationships as part of its continuous improvement effort.

The intent is to develop strategic approaches that move the configuration toward systemic practices and a degree of institutionalization that will carry beyond the five-year federal grant. The Partnership could conduct a sequence of activities within its committee structure to:

1. Revisit goals and objectives, and assess current institutional capacity.
2. Map key points of contact in education, industry and governance.
3. Assess experiences; identify key issues, constraints and opportunities for improving scope, depth and continuity of linkages.
4. Articulate strategic approaches in planning document.

Systemic Practices

The Partnership should accelerate its efforts to broaden the concept of STC and advance systemic practices throughout the regional project.

STC extends far beyond the categorical funding stream and activities conducted by the Partnership with federal grant monies. Minimally, STC includes youth education and training activities provided with funds allocated under the Workforce Investment Act, the Perkins Act and the School-to-Work Opportunities Act. Each of these requires their service delivery and oversight structures such as the Capital Area Tech Prep Consortium Board, Director and staff; the Partnership Board, Director and staff; and the Capital Area Youth Council Board, Director and staff. Add to this list the numerous service providers, as well as the varied business, educator and other customer bases of these entities, and the operational context quickly becomes complicated.

Moreover, STC also encompasses an even broader range of education, training and employment services that seek to provide livelihood options based on living wages and the pursuit of lifelong learning to students and out-of-school youth. These include such initiatives as the Construction Gateway program, the Job Corps, Capital Idea, joint apprenticeship training programs, and drop-out recovery programs, as well as proprietary school, community and technical colleges, and the academic and professional pathways

at public and private universities. Systemic "thinking" and "acting" should engage these multiple entities alongside the current partners.

Component objectives of adapting strategic approaches could be to broaden the concept of STC and to increase systemic practices. The Partnership could take several steps in this direction, including:

1. Continue moving beyond co-location towards joint implementation and integration among the WIA, Tech Prep, STC and postsecondary vocational education entities at the central ACC facility.
2. Begin marketing a broader, more inclusive concept of STC in order to attract entities with shared goals. Support for this concept must be built among educators, employers and community leaders.
3. Enlist methods to move beyond career concentrations and industry clusters in order to help reduce the perceived distance between college and non-college bound career orientations.
4. Develop an organizational structure that facilitates participation and distributes responsibility across the broader range of entities that share a common goal.

Sustainability

The Partnership must advance the sustainability of STC activities by forging new funding linkages.

The Partnership must identify and secure the resources to continue the work begun in recent years. Federal funding expires in less than thirty months, and the Partnership is beginning to address this challenge. For example, CATF has initiated efforts for self-funded activity in the ISSCs.¹⁰ It appears initially that dealerships are willing to support the automotive technology steering committee; it is less clear, for example, whether the construction industry would be as responsive. Moreover, the contribution of educators is likely to be primarily in-kind.

The underlying premise is that if employers and educators begin to realize benefits from STC, they will be responsive to contributing money for the process. Unfortunately, Austin's STC activities have not been evaluated in terms of their cost-effectiveness, their benefits and costs, or their return on investment.¹¹ This topic is discussed further below.

¹⁰ CATF has been successful in attracting funding from multiple local sources for Career Fairs, Gateway and other initiatives.

¹¹ The ImpactDataSource and the Technology and Economic Development Division at Texas A&M University's November 1999 report, "Linking School-to-Careers with Economic Development: A Report on the Economic Impact of School-to-Careers in Texas," (Austin, TX: TWC), is based on Tech Prep and inappropriately estimates some multiplier effects.

Interviews reveal that the level of perceived benefit varies considerably across firms and industry from altruism to the bottom-line, firm specific to industry wide, and short- and long-term time frames.¹² Some regard participation as a public service/good corporate citizen initiative; others note reduced material costs and increased productivity with trained workers and semi-skilled interns. Some school representatives echo benefits found in the joint report to Congress that STC results in higher academic, better school attendance, reduced drop-out rates and better college preparation, but these results are reportedly not well-documented or widely recognized among educators who are not directly involved in STC locally.¹³

In addition, there is likely to be unnecessary duplication and unaccounted costs in the present STC configuration. The organizational redundancy was alluded to above. At some point, the Partnership will have to evaluate the talents, dedication and tasks performed by its present director and numerous other individuals on a voluntary basis.

A broader net must be cast to continue the Partnership's work among educators and other collaborators. Several steps can be taken by the Partnership, including:

1. Further develop itself as a national STC model.
2. Identify creative funding options for innovative service delivery models. Begin with close perusal of WIA, TANF and TANF maintenance-of-effort funds that could be used to help students and out-of-school youth locally.¹⁴
3. Assess the cost-effectiveness or return-on-investment (ROI) of the regional STC approach in part as a marketing tool for educators, employers and the public. STC results from other areas can be adapted as part of the area marketing strategy.
4. Continue efforts for self-funding operations.
5. Increase its efforts to reduce administrative costs across collaborators and redirect savings to direct services.

¹² See Glover, *Engaging Industry in Building School-to-Career Opportunities*. The National Employer Leadership Council also documents benefits for employers and educators in "Intuitions Confirmed," (New York: NELC).

¹³ U.S. Department of Education and the U.S. Department of Labor, *Implementation of the School-to-Work Opportunities Act: Joint Report to Congress* (Washington, D.C.: School-to-Work Office, 1999).

¹⁴ In a guide called *Helping Families Achieve Self-Sufficiency: A Guide on Funding Services for Children and Families through the TANF Program*, the U.S. Department of Health and Human Services states that programs that "improve the motivation, performance and self-esteem of youth" can be funded with TANF funds because they "they would be expected to reduce school dropout and teen pregnancy rates," (<http://www.acf.dhhs.gov/programs/ofa/funds2.htm>).

Combating Vocational Stigma

Despite the combined efforts of Partnership staff, community leaders, educators and employers, the public perception of STC as another version of “voc ed” in the public schools, with primarily negative connotations, persists. To the extent that students, parents and teachers accept this view of STC activities, it will be difficult to build and maintain support for them over time as vehicles for serving a broader mix of students or for achieving whole-school reform. This is further complicated by Texas’ emphatic support of *voluntary* STC participation.

In addition, recent labor market developments, while placing a measurable premium on high skills, are not necessarily doing so exclusively via the attainment of *educational* credentials. Employers increasingly seek and respond to signals that employees possess the requisite occupational and soft skills (e.g., industry certification) and can apply them on the job. With increasing competition on all fronts, ever-shorter product cycles and demands for just-in-time production, it is increasingly important for all students to pursue work-based learning opportunities and to acquire skills associated with earning high wages. Moreover, research has shown that many students who are considered “college-bound” by educators and parents may learn more effectively in applied, learning-by-doing contexts. STC is no longer just for the “forgotten half” as was initially thought.

The Partnership should seek to combat the continuing perception of STC as voc ed and its associated stigma by:

1. Enlisting leading employers, community leaders and practitioners, as well as selected academics, to more clearly articulate the nature of and benefits from STC participation for students in the context of recent labor market trends.
2. Continuing to pursue internships for secondary math and science instructors to increase their exposure to the workplace.
3. Broader representation of higher skilled and professional occupations at area career fairs.
4. Working with secondary school administrators and teachers to reduce conflict between class and extracurricular activity scheduling to facilitate broader STC participation.

Addressing High Tech Student and Teacher Bottlenecks

The Partnership needs to intensely examine methods for engaging and retaining students and teachers in High Tech career concentrations.

Austin’s rapidly growing High Tech sector is a very important member of the STC Partnership. Unfortunately, Austin ISD high schools and ACC have insufficient student enrollments in associated career concentrations either to satisfy part of that demand or to enroll students in available internships. Several factors contribute to this: Student may

have inadequate skills or coursework in algebra, lack interest or pursue their interest outside of the career concentrations curricula, and experience scheduling conflicts among their competing priorities and interests. Instructors may exit teaching for more lucrative corporate employment, lack sufficient student enrollments to justify course offerings, remain wed to traditional curriculum or lack adequate resources and institutional support. The Partnership is very aware of these shortcomings and could take several steps to alleviate them, including:

1. Continue working through the committee and ISSC to gestate ideas and actions.
2. Begin career awareness earlier across the Austin ISD to present course prerequisites well in advance.
3. Pursue completion of IACPs by the 8th or 9th grade.
4. Experiment with suggestions for strengthening the recruitment and retention of instructors, including financial and educational incentives such as paid summer internships that keep instructors abreast of latest technologies (while making their salaries more competitive); recruitment/signing bonuses; merit increases; and extended contract days.
5. Assess the factors associated with schools and ISDs that are more successfully operating High Tech career concentrations. Observed factors included dedicated instructors, the support of the school and school district administration, ample funding, strong student recruitment efforts and state-of-art facilities.

Accountability and Continuous Improvement

The Partnership should develop and clearly articulate an accountability strategy for measuring and managing performance for continuously improvement of STC activities and services, and work with its local partners, its colleagues in workforce boards around the state, and key state officials to implement it.

Data concerning both participation in and outcomes from STC activities and services are woefully inadequate or altogether lacking at the local level, and the situation is not much better at the state or national level. For example, while Partnership staff is aware of numerous Tech Prep participants in Austin, data available to them from TWC do not reflect such participation. Nor is it possible with existing information systems and performance management tools to track subsequent postsecondary or labor market experiences for participating youth. This is unacceptable in this era of rapidly rising expectations for customer service and accountability.

The Partnership recognized the importance of comprehensive performance measurement and management approaches and began working to do so in its initial plans. Unfortunately, useful data provided by the state have not yet materialized at the local level. Solid measures and tools for the Partnership to use for real accountability and continuous improvement have remained elusive to date. A number of steps should be

taken to remedy this situation, not all of which are in the hands of Partnership staff or local program administrators. These steps include:

1. Continuing to articulate clear goals and objectives for the remaining years of the STC grant and quantifying them to the extent possible for subsequent measurement and tracking.
2. Working with local and state program administrators to determine the information requirements stemming from these objectives and their numerical targets and data availability and accessibility for them.
3. Developing a set of customer satisfaction measurement approach to help inform Partnership staff and others about the fruits of their efforts and the needs of their various customer bases.¹⁵
4. Developing and implementing an ongoing return-on-investment (ROI) approach that features continuous improvement.¹⁶

Adopting a performance management approach with these elements addresses two needs. First, there is the broad need to be held accountable for the use of public and private funds supporting local STC initiatives. Second, a process is needed that will help inform and drive STC services towards continuous improvement over time, benefiting all of its customers.¹⁷

Additional steps need to be taken at the state level. Regarding participation data, TWC, TCWEC and their state partners should review the existing STC data and ensure that the necessary elements are in place and reported reliably and consistently across the state. Among the elements that need to be addressed are those related to the nature of STC participation, such as tech prep, work-based learning, and related activities.

In terms of labor market outcomes, we have had considerable experience with linking student/participant records to near- and longer-term employment and earnings information from Unemployment Insurance (UI) wage records (maintained by TWC as part of the UI program). UI wage records are essential for performance measurement and are easily and inexpensively accessed.¹⁸ However, wage records lack key data elements,

¹⁵ This effort could build upon the customer satisfaction project recently begun by AISD involving University of Texas researchers and others.

¹⁶ See Robert W. Glover et al, *Return-on-Investment (ROI) Analysis of Education and Training in the Construction Industry* (Austin: The University of Texas at Austin, Center for Construction Industry Studies, Report No. 6, March 1999); and Jack J. Phillips, *Measuring Return on Investment: Volumes I and II*, (Alexandria, VA: American Society for Training and Development, 1994 and 1997).

¹⁷ A word of caution is in order. The recent study of the economic impact of STC in Texas attributes excessive impact to STC programs with a resultant loss in credibility. Carefully performed ROI analysis should avoid over-attribution.

¹⁸ For more on the use of UI wage records for performance measurement and management, see Christopher T. King and Deanna T. Schexnayder, "The Use of Linked Employer-Employee UI Wage Data: Illustrative

including especially occupation, but also hourly wage and hours of employment. Occupational identifiers would be particularly useful in tracking career progression in the labor market that is central to the Partnership's STC approach, and the technology exists to incorporate them into the UI reporting system.

Labor markets, here and abroad, are undergoing rapid and pervasive change as we evolve towards a "New Economy" that is far more global and interdependent and far more driven by developments in information and related technologies.¹⁹ Employers are increasingly placing a premium on higher skills and often require greater educational credentials for initial entry into the workplace.²⁰ Career ladders are becoming truncated, while the first few rungs on these ladders are often with temporary firms. Career pathways/career progressions are rapidly changing, and the gap between segments of the labor force is becoming wider even though economic growth is continuing at a robust pace.²¹

The Partnership's STC approach is relatively unique in the nation. It features a level of employer engagement with its industry-led approach that is rarely seen in publicly funded employment and training programs, despite the fact that such engagement has been found to be vital to the longer-term labor market success of such efforts.²² But, recent labor market developments raise concerns about the viability of career pathways as traditionally conceived. It is unclear in what direction this may lead. Some of the more successful approaches employed in other communities should be identified from recent studies and considered for use in tandem with the Partnership's ongoing STC efforts.²³

Uses in Texas Policy Analysis," *International Symposium on Linked Employer-Employee Data*, Arlington, VA, May 21-22, 1998.

¹⁹ Excellent books and reports are now available exploring these changes and their implications, including Peter Cappelli et al., *Change at Work* (New York: Oxford University Press, 1997).

²⁰ Daniel P. O'Shea et al., *Successful Career Progression: Exploratory Findings from a Study of Selected Occupations* (Austin: Center for the Study of Human Resources, Lyndon B. Johnson School of Public Affairs, The University of Texas, April 1999); Elizabeth Dimmitt, *Texas Career Progressions*; and Cappelli et al., *Ibid.*

²¹ For more on this issue, see Ray Marshall (ed.), *Back to Shared Prosperity: The Growing Inequality of Wealth and Income in America* (Armonk, New York: M. E. Sharpe, 2000).

²² Christopher T. King et al., "Training Success Stories for Adults and Out-of-School Youth: A Tale of Two States," in Burt S. Barnow and Christopher T. King (eds.), *Improving the Odds: Increasing the Effectiveness of Publicly Funded Training* (Washington, D.C.: Urban Institute Press, 2000).

²³ For more on these, see: Robert I. Lerman, "Employment and Training Programs for Out-of-School Youth: Past Effects and Lessons for the Future," in Barnow and King, *Ibid.*; Andrew Sum et al., *A Generation of Challenge: Pathways to Success for Urban Youth* (Baltimore, MD: Sar Levitan Center for Social Policy Studies, Policy Issues Monograph 97-03, June 1997); and Marion Pines (ed.), *Making Connections: Youth Program Strategies for a Generation of Challenge, Commendable Examples from The Levitan Youth Policy Network* (Baltimore, MD: Sar Levitan Center for Social Policy Studies, Policy Issues Monograph 99-02, April 1999).

The Capital Area Careers and Education Partnership is at an important juncture in its STC initiative in Austin. It has made major inroads with schools, employers, government and community leaders that now need to be fully developed to help local youth improve their chances of a secure and satisfying future.

Appendix A

CAECP Interview Guide

Capital Area Education and Career Partnership (CAECP) Evaluation Interview Guide

The Ray Marshall Center for the Study of Human Resources, a research unit of the LBJ School of Public Affairs at The University of Texas-Austin, is conducting an evaluation of "School-to-Career" activities and services conducted under the auspices of the Capital Area Education and Career Partnership (CAECP). The Texas Workforce Commission (TWC) required an independent evaluation of Year One (SFY 1998) and Year Two (SFY 1999) activities as part of the Year Three (SFY 2000) grant. Center researchers are assessing the accomplishments, constraints and prospects of CAECP initiatives designed to help youth and young adults advance their educational and workplace achievements in pursuit of satisfying and productive careers. The evaluation design strives to capture implementation experiences from multiple perspectives within the system in order to assess achievements and shortfalls, as well as to provide a basis for continuing improvement in the School-to-Career system. We appreciate your cooperation in helping us with our tasks by discussing your experiences and observations.

Part One General Observations (CAECP,CAWDB,CATF,Chamber,Board Members)

I. Partnership/System

Do you think of the Partnership as a STC "system"? If so, what is your role in the STC "system"?

If not, how would you describe the collection of collaborators and activities brought together in the Partnership?

II. Goals and Objectives

From your perspective with the (institutional association), what were the most important goals and objectives of the school to career Partnership in Travis County for the first two years (thru August 1999)?

How successful was the Partnership at getting done what it set out to do?

In what areas was STC Partnership more successful? Why

In what areas was the STC Partnership less successful? Why?

III. Activities and Services

What were the principal (school-based, work-based or connecting activities) that you were involved with under the Partnership?

Which of these were more successful? regarding effects on participants/students in terms of career preparation?

Which of these were less successful?

IV. Collaborative Configurations

Who would you identify as the key collaborators in the STC Partnership?

Who did you work most closely with? What were the strengths and weaknesses of your collaboration?

V. Student Participation

Could you characterize student involvement in activities that you were involved with under the Partnership? Was participation, in terms of numbers, what you expected? What "type(s)" of students participated?

How did you measure performance? Or monitor student participation?

VI. Resources

Were the resources made available to you under the Partnership adequate to do what you felt needed to be done? Explain.

To what extent did you "package" a variety of resources to support your efforts? Comment.

Will you be able to continue STC efforts after the federal grant expires? Explain.

VII. Outcomes

What difference have you made in the career prospects of students? How do you measure this effectiveness?

How have employers benefited from the STC Partnership? How do you measure these benefits?

How have the communities within Travis County benefited from the STC Partnership? How do you measure these benefits?

How might any or all of these benefits be sustained or enlarged on the future?

Part Two
Students and Youth
(Steering Committee Members, ISD Coordinators, Instructors)

I. Outreach/Marketing

How were STC opportunities communicated to students? Other young adults or special populations?

II. Enrollment/Recruitment

Briefly explain how students are enrolled in STC activities.

What are the greatest barriers to recruiting students for STC? What recommendations do you have to improve these processes?

How are instructors identified, recruited and retained? Does this vary by career pathway? How? What recommendations do you have to improve these processes?

III. Service Planning/Services Provided

How is the menu of activities at a specific school or school district negotiated?

How do Industry Steering Committees link up with educators, trainers and employers? What recommendations do you have for improving these connections?

When was the Individual Academic Career Plans (IACPs) introduced? How widely is it used and how effective is it as a career guidance instrument?

When was the ERISS/WIN introduced? Explain student/staff training in its use. To what extent have employers become involved by making internship and employment opportunities available? What other LMI tools are available in Travis County?

IV. Monitoring/ Performance Management

How closely is student progress monitored in STC activities? Is there an automated data system available?

When were the "Summer Internship Performance Indicators" introduced and how well received have they been?

What would you recommend to improve student monitoring and performance management capacity?

V. Follow-up Mechanisms

What sort of follow-up mechanisms are in place as students progress from secondary to postsecondary education, training or employment?

**Part Three
Employers**

(Industry Liaisons, Steering Committee Members, Employers, Mentors/Trainers)

I. Marketing/ Recruitment

How were STC opportunities communicated to employers? Does this vary by industry group? How?

How are potential employer benefits assessed and communicated?

How do Industry Steering Committees recruit from and link up with local employers? What recommendations do you have for improving these connections?

What are the greatest barriers to recruiting employers for STC? What recommendations do you have to improve these processes?

II. Services Provided

How is the menu of activities (e.g., site visits, job shadowing, internships, mentoring or employment) at a specific employer negotiated?

To what extent have employers become involved by making internship and employment opportunities available? How does this vary by size or sector or other variables?

III. Monitoring/ Performance Management

To what extent is student progress monitored in work-based activities? Does an automated data system track progress?

To what extent is the employer "cost" of managing and monitoring work-based activities accounted? Productivity benefits? Human resources supply? Future remediation and training? Is any data available in these areas?

When were the "Summer Internship Performance Indicators" introduced and how well received have they been?

What would you recommend to improve workplace monitoring, benefit/cost and performance management capacity?

IV. Follow-up Mechanisms

What sort of follow-up mechanisms are in place to gauge employer satisfaction with STC efforts? What improvements would you recommend?



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